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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,305	03/19/2004	James R. Gustafson	67,010-089; H2751-ED	7335
26096	7590	02/28/2005	EXAMINER	
CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			LAM, THANH	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 02/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

Office Action Summary

Application No.

10/804,305

Applicant(s)

GUSTAFSON ET AL.

Examiner

Thanh Lam

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Iwata et al. (US 4,749,894).

Regarding claim 1, Iwata et al. disclose an electric motor assembly, comprising: a housing (9) having a cavity (1); at least one electric motor component disposed in the cavity; and a thermally conductive fluid (col. 3, 2nd paragraph) that fills the cavity to substantially submerge said at least one electric motor component.

Regarding claim 2, Iwata et al. disclose said at least one electric motor component comprises a motor selected from the group consisting of a permanent magnet motor and a switched reluctance motor.

Regarding claim 3, Iwata et al. disclose said at least one electric motor component comprises a rotor (2), a stator iron (3), and a stator winding (4).

Regarding claim 4, Iwata et al. disclose comprises a partition (8) separating the rotor from the stator iron and the stator winding, wherein a space between an exterior portion of the partition and the housing forms the cavity, and wherein the thermally conductive fluid fills the cavity to substantially submerge at least one of the stator iron and the stator winding without contacting the rotor.

Regarding claim 5, Iwata et al. disclose the thermally conductive fluid is a dielectric fluid.

Regarding claim 6, Iwata et al. disclose the dielectric fluid is a dielectric oil.

Regarding claim 7, Iwata et al. disclose an engine starter system, comprising: a housing having a cavity; an electric motor housed in the cavity, a dielectric fluid (col. 3, 2nd paragraph) that fills the cavity to substantially submerge the motor; and a rotor output shaft (12) that couples the motor to an engine.

Regarding claim 8, Iwata et al. disclose the electric motor is a motor selected from the group consisting of a permanent magnet motor and a switched reluctance motor.

Regarding claim 9, Iwata et al. disclose the housing further comprises a partition separating the rotor from the stator iron and the stator winding, wherein a space between an exterior portion of the partition and the housing forms the cavity, and wherein the thermally conductive fluid fills the cavity to substantially submerge at least one of the stator iron and the stator winding without contacting the rotor.

Regarding claim 10, Iwata et al. disclose the housing has a fluid inlet and a fluid outlet, and wherein the system further comprises: a fluid pump that circulates the dielectric fluid through the fluid inlet into the cavity and out of the fluid outlet; and a fluid reservoir that houses excess dielectric lubricant.

Regarding claim 11, Iwata et al. disclose comprising a heat exchanger that receives the dielectric fluid from the cavity and removes heat from the dielectric fluid.

Regarding claim 12, Iwata et al. disclose comprising a filter connected upstream of the housing to filter particles from the dielectric fluid before the fluid is sent into the cavity.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Lam whose telephone number is (571) 272-2026. The examiner can normally be reached on t-f 9-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Thanh Lam
Primary Examiner
Art Unit 2834